

RE: Signed clearance form

Jim Lazorchak to: Clements, William

02/16/2012 07:01 PM

Cc: tschmidt, Elaine Lai, Kristen Keteles, Gail Franklin, Sandra Spence, johnson.brent, fritz.ken, Christopher Nietch, griffith.michael, waltersd

From:

Jim Lazorchak/CI/USEPA/US

To:

"Clements, William" < William. Clements@colostate.edu>,

Cc:

tschmidt@usgs.gov, Elaine Lai/R8/USEPA/US@EPA, Kristen Keteles/R8/USEPA/US@EPA,

Gail Franklin/R8/USEPA/US@EPA, Sandra Spence/R8/USEPA/US@EPA,

johnson.brent@epa.gov, fritz.ken@epa.gov, Christopher Nietch/CI/USEPA/US@EPA,

Will

Sounds good. Keep in mind I have no funding currently and not sure of what 2013 will bring. However, USGS, DOE and EPA are developing an MOU to collaborate. What I and Travis currently see is there is an issue in the Raton Basin (tribs to the purgatory river).

Here is a presentation that Travis and I attended last week on an issue in the purgatory river. What's uncertain is whether there is aquatic life in the receiving streams in which the HF produced waters are discharged.



AECOM packet\_fl2.pdf

Travis found some information on the status of aquatic life in this basin prior to HF activity.





Bramblett\_Fausch\_1991.pdf Bramblett\_Fausch\_1991b.pdf

So my thought is that we should develop some mesocosm senarios that represent the tribs in this system and develop a testing scenario representative of the produced waters exposure and effects during the documented period old the presence of aquatic life.

James M. Lazorchak Aquatic Ecologist/Toxicologist Manager, AAALAC Certified Aquatic Research Facility ORD NERL EERD U.S. EPA 26 W. Martin Luther King Dr Cincinnati, OH 45268 Phone 513 569 7076 513 919 7129 or 513 5501537 cell

513 569 7438 Fax

Email: Lazorchak.iim@epa.gov web: http://www.epa.gov/eerd/

From:

"Clements, William" < William. Clements@colostate.edu>

To:

Jim Lazorchak/CI/USEPA/US@EPA

Date: Subject: 02/16/2012 08:37 PM RE: Signed clearance form

Jim,

Now that you have seen our system, I would also like to include results of mesocosm experiments in the development of regional criteria. I think one of the key advantages is the opportunity to generate toxicity data for a number of sensitive species and life stages simultaneously.

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From: Jim Lazorchak [Lazorchak.Jim@epamail.epa.gov]

Sent: Saturday, February 04, 2012 10:48 AM

To: willc@warnercnr.colostate.edu Subject: Fw: Signed clearance form

Will

Its time to start putting together a 2 or 3 pager on how we want to approach a regional based criteria approach based on invertebrate data (tipping points, ecological thresholds, SSD) and lab bench scale testing of new regionally representative species. Charlie is one of the folks in EPA Criteria program that we could use to bounce ideas against and then decide where to go from there.

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---- Forwarded by Jim Lazorchak/CI/USEPA/US on 02/04/2012 12:42 PM

From: Charles Delos/DC/USEPA/US
To: Jim Lazorchak/CI/USEPA/US@EPA

Date: 02/03/2012 09:30 AM

Subject: Re: Signed clearance form

Jim, Keep us in the loop as your Regional Criteria concepts evolve. It sounds interesting.

Charlie

From: Jim Lazorchak/CI/USEPA/US
To: Charles Delos/DC/USEPA/US@EPA

Date: 02/02/2012 10:49 AM

Subject: Re: Signed clearance form

## Charlie

Thanks for the quick turn around time. I know you are very busy with the conductivity thing. That is another reason why I sent you this so you know the latest. We are also trying to get another species or two going that is representative of the west mainly Colorado and Wyoming. What I have tried to do for your program is to

- 1) Assess the sensitivity difference among standard test species to new species
- 2) Develop test methods for the new species

What I also am trying to do is come up with a Regional Site Specific Criteria Modification approach whereby we use invertebrate, periphyton and fish data to identify sensitive taxa. Then develop culture and test methods for representatives of those sensitive taxa then run them against a battery of reference toxicants to assess their sensitivity among classes of chemicals - Salts, Metals, pesticides etc.

If you or your folks are interested in this idea I would like to develop a white paper or a proposal concept we could publish or run by the SAB?

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From: Charles Delos/DC/USEPA/US
To: Jim Lazorchak/CI/USEPA/US@EPA

Date: 02/02/2012 10:21 AM

Subject: Signed clearance form

Jim -- I especially appreciated seeing the slides showing how the cultures and tests are done.

## Charlie

---- Forwarded by Charles Delos/DC/USEPA/US on 02/02/2012 10:15 AM

From: OSTScanner5231HH@EPA

To: Charles Delos/DC/USEPA/US@EPA
Date: 02/02/2012 10:14 AM Subject: Attached Image

[attachment "1010\_001.pdf" deleted by Jim Lazorchak/CI/USEPA/US]